IN THE CLAIMS

A marked-up version of the claims, showing changes made, may be found in Appendix A, attached hereto. Below is a clean set of all pending claims, submitted under 37 C.F.R. §1.121(c)(3), incorporating any additions, cancellations, and amendments thereto. Please substitute these claims for pending claims of the same number.

7. (Amended) A heat exchanger comprising

a first heat dissipation mechanism having a first heat dissipation capacity;

a second heat dissipation mechanism having a second heat dissipation capacity;

a variable thermal conductivity heat pipe having a first portion physically coupled to a heat generating component, a second portion physically coupled to the first heat dissipation mechanism, and a third portion separated from the first portion and the second portion by a limited conductivity portion and physically coupled to the second heat dissipation mechanism.

8. The heat exchanger of claim 7 wherein the variable thermal conductivity heat pipe has a first thermal path with a first thermal conductivity which couples the heat generating component to the first heat dissipation mechanism and has a second thermal path with a second thermal conductivity which couples the heat generating component to the second heat dissipation mechanism and wherein the first thermal conductivity is at least twice the second thermal conductivity and the first heat dissipation mechanism is an active heat dissipation mechanism.

9. The heat exchanger of claim 8 wherein the heat generating component is a processor and wherein the first thermal conductivity is approximately four times the second thermal conductivity.

10. The heat exchanger of claim 7 wherein the first heat dissipation mechanism is an active heat dissipation mechanism that is enabled depending on at least a temperature of the heat generating component.

11. The heat exchanger of claim 7 wherein the first heat dissipation mechanism is a fan based heat exchanger and wherein the second heat dissipation mechanism is a thermally conductive plate beneath and substantially parallel to a keyboard.

12. (Amended) The heat exchanger of claim 7 wherein the limited conductivity portion is a narrowed portion of the variable thermal conductivity heat pipe.

17. (Amended) A system comprising:

an electronic component;

a variable thermal conductivity heat pipe having a first portion and a second portion separated by a throttling portion, the electronic component being physically coupled to the first portion; and

a first heat dissipation mechanism physically coupled to the first portion of the variable thermal conductivity heat pipe; and

a second heat dissipation mechanism physically coupled to the second portion of the variable thermal conductivity heat pipe.

18. The system of claim 17 wherein the first heat dissipation mechanism is a fan based heat exchanger including a fan and a plurality of fins which are directly welded to the heat pipe.

19. The system of claim 18 wherein said electronic component is coupled to said first portion of said variable thermal conductivity heat pipe.

20. (Amended) The system of claim 18 wherein the limited conductivity portion is a narrowed portion of the variable thermal conductivity heat pipe.

21. The system of claim 18 wherein the second heat dissipation mechanism is a heat dissipation plate affixed beneath and substantially parallel to a keyboard.

27. (Amended) An apparatus comprising:

at least one electronic component;

a heat pipe having a limited conductivity portion, the heat pipe having a first portion physically coupled to the at least one electronic component;

a fan based heat exchanger physically coupled to a second portion of the heat pipe;

a metallic plate physically coupled to a third portion of the heat pipe and separated from the first portion that is connected to the at least one electronic component by the limited conductivity portion of the heat pipe.

28. The apparatus of claim 27 wherein the metallic plate comprises a plate substantially beneath a keyboard.

29. The apparatus of claim 27 wherein said limited thermal conductivity portion of said heat pipe comprises a narrowed portion of said heat pipe.

30. The apparatus of claim 28 wherein the metallic plate comprises a portion of a thermally enhanced keyboard.

31. The apparatus of claim 27 wherein said electronic component is a processor and is coupled to said first portion of said heat pipe.

32. (Amended) The apparatus of claim 27 wherein the limited conductivity portion is narrowed.

REMARKS

The Specification is objected to under 35 USC § 112, 37 CFR § 1.71(a) – (c) for allegedly failing to disclose the limitations of claims 8-10, 12, 20 and 32. Likewise, claims 8-10, 12, 20 and 32 are rejected under 35 USC § 112, first paragraph.

Claims 7-8 and 10 stand rejected under 35 USC § 102(e) as being anticipated by US